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Modeling Organizational Performance: Differentiating Factors in Economic Periods Prior, During, and Post Recession

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Abstract

Since the Airline Deregulation Act of 1978, US airlines have been facing increasing pressure to reduce fares while competing in areas such as passenger comfort and amenities. In a highly volatile industry ruled by economic factors, this research intends to examine the health and status of the American economy, and its implications on the airline industry as a whole. More specifically, airline performance during economic recessions will be compared to performance during times of expansion or growth. Taking airline passenger perception into account, this model will investigate how airline operations during a recession combine with passenger perceptions to determine if the airlines are meeting or exceeding the traveling public's expectations. Directly, this investigation looks to examine the impact of the United State's economy (prior, during and post recession) on US air carriers. Methodology will include intensive case study to determine recessionary periods in comparison to trending Airline Quality Rating (AQR) data for a select group of airlines representative of the industry. Particularly, this research will focus on three US carriers: Continental (legacy), AirTran (low-budget) and SkyWest (regional). Benchmarked expansion periods between 2003 and 2010 will be pitted against airline performance during and after economic downturns.

Keywords: airline performance, recession, operational performance, performance expectation

1. Review of Literature

The literature review will aim to review past scholarly work regarding analysis of air carrier customer service performance and how those factors correlate to other aspects of operation and daily business. It will identify why performance is studied and how a business model can be modified just by listening to the needs of the customers who purchase the carrier's service. The literature review attempts to explain the connection between the satisfaction of customers and a successful company by meeting daily operational expectations with consistency. It also explains from the passengers who travel on commercial air carriers frequently what the expectations are and why they exist.

1.1 Service Quality and the Airline—Passenger Interactions

The quality of service and performance provided by airlines over domestic routes exists in a dynamic environment. The deregulation of the United States airlines, economic crises, mergers, and the development of new technology have all played a role in shaping the airlines that we know today. Identifying how that service might have been affected in the past can provide insight into service expectations during turbulent times in the future. Focusing on a broad spectrum of concurrent years of service, this research will investigate the possibility that these major events, specifically economic crises, have a visible effect on airline service quality.

Airline service and performance are invariably tied together. In order to be successful, all aspects of an airline must be created with the customer's experience in mind. Airlines are tasked with unique challenges such as differentiating their

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service and providing a consistent product that emphasizes quality service. The goal of an airline, according to AirTran Airways' website, is to provide the safest and most comfortable flights possible (AirTran, 2011). The words service and performance are synonymous and will be used interchangeably throughout the rest of this study.

In 1978, "the Airline Deregulation Act did more than allow market forces to set prices and carriers to select routes based on traveler demand; Deregulation also permitted carriers to determine the level of service quality provided to customers" (Tiernan, Rhoades, & Waguespack, 2008, pg. 20). Though airline performance was tracked by the government, the records were not publically available; therefore service and airline performance could not be used as a competitive edge to gain customers.

Service can be measured by a number of variables; ranking the variables is difficult and depends on one's perspective. Before the year 1987, there was little empirical public evidence to suggest which airline performed better than the other, or which offered the highest quality service. The average person's opinions were based on personal experiences or information reported in the news. This changed in 1987 with the introduction of the Air Travel Consumer Report (ATCR), which is a monthly report produced by the Department of Transportation's Office of Aviation Enforcement and Proceedings (OAEP). According to the ACTR website "the report is designed to assist consumers with information on the quality of services provided by the airlines" (DOT, 2011, pg. 2). The ATCR initially focused on four major metrics of commercial service: flight delays, mishandled baggage, oversales, and consumer complaints.

The increase in accessibility of airline performance data to the public has forced airlines to constantly examine their public image and take passenger rights more seriously. Publishing the ATCR was a milestone for passenger rights, and in recent years those rights have been given another element of protection. Weather delays are nothing new to airlines, but making passengers sit in the airplane on the tarmac for upwards of eight hours has led to a re-examination of passenger rights. As of December 2009, the U.S. Department of Transportation instituted new rules regarding delayed flights. U.S. Transportation Secretary Ray LaHood said "Airline passengers have rights, and these new rules will require airlines to live up to their obligation to treat their customers fairly" (DOT, 2009, pg.1).

The rapid growth of the internet has drastically changed the level of interaction between the airline and the passenger. The increased visibility of airline fares online helps passengers to make more informed decisions by allowing them to immediately compare fares among airlines. An example of this change is the ability for passengers to view all available fares for a desired route online. This feature makes the lives of passengers easier, but from an airline perspective it adds another level of complexity to an already complex commercial airline business model because passengers are informed of other airline's prices and can take them into consideration when choosing a flight. In 2002 the purchasing of airline tickets online accounted for half of all travel-related internet sales (Cunningham, Gerlach, & Harper, 2004).

1.2 Performance Expectations

When passengers travel, they have a general expectation on elements of the travel experience such as dimensions of reliability, assurance, facilities, employees, flight patterns, customization and responsiveness (Gilbert & Wong, 2002). Depending on the reason for travel, passengers will expect different services. For example leisure travelers might expect some kind of in-flight entertainment while business travelers might want amenities such as Wi-Fi and lay flat seats. Regardless of the motive for travel, domestic airline passengers are differentiated based on their frequency of loyal travel. That is, the more a person flies on a single airline, the more benefits they will receive including early boarding, free drinks, and comfortable waiting areas. According to Chang and Yeh (2001), "in a highly competitive environment, where all airlines have comparable fares and matching frequent flyer programs, airline's competitive advantages lie in the service quality perceived by customers" (pg. 166).

In order for an airline to increase service performance and customer satisfaction it must understand its customers' expectations and find ways to meet or exceed them. According to Walker and Baker (2000), "Understanding what consumers expect from a service organization is important because expectations provide a standard of comparison against

which consumers judge an organization's performance airlines must determine the customer's needs by establishing what is perceived by customers as potential advantages or disadvantages in service"(pg.411).

1.3 Economic Recession

There are many definitions of what a recession is; the definitions vary based on the audience. Some definitions are similar and some and some take opposing viewpoints. The most widely accepted general definition of a recession is two consecutive quarters of receding Gross Domestic Product or GDP (Leamer, 2008). The National Bureau of Economic Research states that a recession is much more than just a decline in the GDP; there are many variables that must be considered when determining what is and what is not a recession. The Business Cycle Dating Committee says that a recession is "a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income, and wholesale-retail trade" (Hall, et al, 2001). The Business Cycle Dating committee believes that the movements of GDP only play a small role in determining a recession because of the multiple revision cycles and quarterly-only distribution. Financial monitors such as the employment rate are considered more accurate metrics in determining recessions because they run on a monthly basis. Primary factors associated with recessions are the overall decline in employment and output; when both of these factors decline rapidly and severely, the overall economy is already feeling the effects of a "recession". The loss of jobs and subsequent decline in consumer spending can tighten the spiral leading to a recession and restrict industrial output, which includes transporting passengers by commercial air carrier.

Commercial air carriers operate with relatively fixed overhead costs. These costs include labor in terms of the flight and ground crew, maintenance costs, and company marketing costs (Banker, & Johnston, 1993). If an airline chooses not to hedge its fuel; fuel is the only major overhead cost that is not fixed and is subject to volatile price fluctuations. Since the price of fuel can be one of the largest costs to an airline it plays a large role in determining how much the airline can afford to spend on other costs as a proportion of its budget.

The cost of energy from home heating bills to car gas is closely entwined with all businesses, but especially commercial air carriers; they spend roughly 20% of operating expenses on fuel (Carter, Rogers, & Simkins, 2006). As a result of oil prices continuing to peak at near-record numbers, most carriers are reducing or entirely eliminating any planned expansion or growth. Experience from the economic and fuel crisis of 2008 has airlines repeating the steps they took three years ago. "North American carriers are turning back to the weapon that served them so well in their last battle against high oil prices, by pulling back planned capacity increases to safeguard recently restored profitability" (Ranson, 2011 pg.1). Planned decreases in capacity leads to a reduction of new hires, if not required lay-offs or furloughs depending on the breadth of operational cuts. The operating profit margin of an air carrier is already very thin, less than 10% (DOT, 2010), exacerbating the already daily impact of changing fuel and overhead costs.

Besides cutting capacity, air carriers were forced to cut certain customer services when reducing capacity wasn't enough. The most visible cut from the customer experience was the food and drink service. Currently free meals are served in First and Economy classes on international flights and only First Class on longer domestic routes. Free meals used to be served in Economy Class on longer domestic flights but have been eliminated in an effort to reduce costs. Airlines have started charging steep prices for quality food onboard their aircraft which many passengers can consider a negative experience considering they used to receive food for free.

In addition to food and drink service, airlines have also turned to other areas of the passenger experience when cutting costs. Instead of cutting costs airlines have also added a variety of ancillary revenues to their service offerings to increase their total revenues. These offerings can provide both a negative and a positive experience for the customer. An example of negative ancillary revenues is the addition of fees to check in baggage on most domestic airlines. Airlines used to allow passengers to check in up to two bags for free, but due to aircraft weight considerations, which translate to increased costs, most airlines have decided to charge approximately twenty five dollars to check in luggage. Spirit Airlines has also started charging fees for carry-on baggage and other amenities that were once standard, such as printing of boarding passes by

gate agents at the airport and the ability to choose a seat (Spirit Airlines, 2013). Some positive ancillary revenues include the options for passengers to have access to express security lines and early boarding.

Although these ancillary revenues may help to increase total revenue, air carriers that frivolously continue to eliminate the elements of travel or charge additional fees for these elements that make customers comfortable are in danger of losing more passenger revenue. An industry operating with thin profit margins coupled with national economic issues where non-essential purchases are limited might cause companies to re-evaluate what is and what is not necessary for business and passenger retention.

1.4 Air Carrier Choice

This study will focus on three airline business models which are described in more detail below. Additional information on how these carriers will be compared to one another in terms of service dimensions across business models will occur in the methods section of this paper. The primary focus of this section is to introduce and compare the types of airline business models. The air carriers chosen for this study were selected to provide a broad analysis across the different sectors or the commercial air transportation industry. The three business models of air carriers that were selected are legacy, low budget, and regional carriers; they each have different business models and serve a different portion of the market.

Legacy carriers typically fly large fleets of aircraft that carry 100 or more passengers and operate robust schedules that offer passengers convenient flight departure times. These airlines traditionally use hub and spoke networks and serve both mid to large sized domestic and international cities. Route networks can include hundreds of cities.

Low-cost carriers fly the same types of aircraft that legacy carriers fly. Most low-cost carriers rely on common fleets of aircraft in order to reduce maintenance and operating costs (Bruggen & Klose, 2010). Low-cost carriers use both hub and spoke networks and point to point networks. Their route networks are smaller than the legacy carriers and mostly offer limited to no international service. Domestic service is usually more limited than legacy carriers in terms of both cities served and schedule frequency; which sometimes causes the passenger to have to fly at inconvenient flight times.

Regional carriers operate aircraft that carry less than 90 passengers. Most regional carriers affiliate themselves through code shares with legacy carriers. These airlines provide two types of services; the first type of service that regional carriers provide is connecting small, mostly domestic cities to their respective legacy carrier's hubs. These cities are too small to warrant service from legacy carriers and are most competitively served by regional carriers. Regional carriers may also provide additional frequency on legacy carrier routes during peak times of the day or times of the day where a larger legacy carrier's aircraft are too large for the demand (Forbes & Lederman, 2007).

2. Future Research

This literature review gives a comprehensive overview of airline quality, passenger perceptions, and airline behavior in economic recessions. The next step of this ongoing project will examine the relationship between the Airline Quality Rating (AQR) and various economic indicators during times of pre-recession, recession, and post-recession. To cover all of these periods, the study will examine data from January 2006 to December 2011. A regression model will be used to determine the relationships between the AQR and the economic indicators. Three major airline business models will be represented; Continental Airlines will represent the legacy carriers; AirTran Airways will represent the low budget airlines, and SkyWest Airlines will represent the regional airlines.

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